

What is claimed is:

1. An apparatus for providing a crypto key and an associated checkword of said crypto key to an encryption device for a telemeter system of a missile, said apparatus comprising:

5 loading means for generating said crypto key and said
6 associated checkword;

7 control means connected to said loading means to
8 receive said crypto key and said associated
9 checkword from said loading means, said control
10 means sending a first logic signal to said loading
11 means to effect a transfer of said crypto key and
12 said associated checkword from said loading means
13 to said control means for storage within said
14 control means;

15 said control means being connected to said encryption
16 device, said control means sending a second logic
17 signal to said encryption device to initiate a
18 load of said crypto key and said associated
19 checkword into said encryption device;

20 said control means receiving from said encryption
21 device a third logic signal, said control means,
22 responsive to said third logic signal, loading
23 said crypto key and said associated checkword into

2. The apparatus of claim 1 wherein said control means comprises an 8-bit Microcontroller.

3. The apparatus of claim 1 wherein said control means includes an EEPROM for storing said crypto key and said associated checkword and a copy of said crypto key and said associated checkword.

1 4. The apparatus of claim 1 further comprising a
2 light emitting diode connected to said control means, said
3 light emitting diode displaying a status for a load of said
4 crypto key and said associated checkword into said
5 encryption device.

1 5. The apparatus of claim 1 further comprising a light
2 emitting diode connected to said control means, said light
3 emitting diode displaying a status for an erase of said
4 crypto key and said associated checkword from said
5 microcontroller.

1 6. An apparatus for providing a crypto key and an
2 associated checkword of said crypto key to an encryption
3 device for a telemeter system of a missile, said apparatus
4 comprising:

5 a key loader having said crypto key and said associated
6 checkword stored therein;
7 a microcontroller connected to said key loader to
8 receive said crypto key and said associated
9 checkword from said key loader, said
10 microcontroller sending a first variable request
11 signal to said key loader to effect a transfer of

12 said crypto key and said associated checkword from
13 said key loader to said microcontroller for
14 storage within said microcontroller;
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16 said microcontroller being connected to said encryption
17 device, said microcontroller sending a sense in
18 signal to said encryption device to initiate a
19 load of said crypto key and said associated
20 checkword into said encryption device;
21 said microcontroller receiving from said encryption
22 device a second variable request signal, said
23 microcontroller, responsive to said second
24 variable request, loading said crypto key and said
25 associated checkword into said encryption device;
26 and
27 said microcontroller being connected to a transmitter
28 for the telemeter system of said missile, said
29 microcontroller providing a transmitter disable
30 signal to said transmitter to disable said
31 transmitter when said crypto key and said
32 associated checkword are loaded into said
33 encryption device preventing said crypto key and
34 said associated checkword from being transmitted
 by said transmitter.

1 7. The apparatus of claim 6 wherein said
2 microcontroller comprises an 8-bit Microcontroller.

1 8. The apparatus of claim 6 wherein said
2 microcontroller includes an EEPROM for storing said crypto
3 key and said associated checkword and a copy of said crypto
4 key and said associated checkword.

1 9. The apparatus of claim 6 further comprising a
2 light emitting diode connected to said microcontroller, said
3 light emitting diode displaying a status for a load of said
4 crypto key and said associated checkword into said
5 encryption device.

1 10. The apparatus of claim 6 wherein said
2 microcontroller is connected to a missile interface within
3 said missile to receive a launch signal from said missile
4 interface upon a launch of said missile, said
5 microcontroller, responsive to said launch signal, erasing
6 said crypto key and said associated checkword from said
7 microcontroller.

1 11. The apparatus of claim 10 further comprising a
2 light emitting diode connected to said microcontroller, said

~~light emitting diode displaying a status for an erase of said crypto key and said associated checkword from said microcontroller.~~

12. The apparatus of claim 6 wherein said microcontroller is connected to a loader interface within said missile to receive an erase signal from said loader interface, said microcontroller, responsive to said erase signal, erasing said crypto key and said associated checkword from said microcontroller.

13. An apparatus for providing a crypto key and an associated checkword of said crypto key to an encryption device for a telemeter system of a missile, said apparatus comprising:

a key loader having said crypto key and said associated checkword stored therein;

a microcontroller connected to said key loader to receive said crypto key and said associated checkword from said key loader, said microcontroller sending a first variable request signal to said key loader to effect a transfer of said crypto key and said associated checkword from said key loader to said microcontroller for

storage within said microcontroller;
said microcontroller being connected to said encryption
device, said microcontroller sending a sense in
signal to said encryption device to initiate a
load of said crypto key and said associated
checkword into said encryption device;
said microcontroller receiving from said encryption
device a second variable request signal, said
microcontroller, responsive to said second
variable request, loading said crypto key and said
associated checkword into said encryption device;
said microcontroller being connected to a transmitter
for the telemeter system of said missile, said
microcontroller providing a transmitter disable
signal to said transmitter to disable said
transmitter when said crypto key and said
associated checkword are loaded into said
encryption device preventing said crypto key and
said associated checkword from being transmitted
by said transmitter;
a first light emitting diode connected to said
microcontroller, said first light emitting diode
displaying a status for a load of said crypto key
and said associated checkword into said encryption

38 device;
39 said microcontroller being connected to a missile
40 interface within said missile to receive a launch
41 signal from said missile interface upon a launch
42 of said missile, said microcontroller, responsive
43 to said launch signal, erasing said crypto key and
44 said associated checkword from said
45 microcontroller;
46 a second light emitting diode connected to said
47 microcontroller, said second light emitting diode
48 displaying a status for an erase of said crypto
49 key and said associated checkword from said
50 microcontroller.

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14. The apparatus of claim 13 wherein said microcontroller comprises an 8-bit Microcontroller.

15. The apparatus of claim 13 wherein said microcontroller includes an EEPROM for storing said crypto key and said associated checkword and a copy of said crypto key and said associated checkword.

16. The apparatus of claim 13 wherein said microcontroller is connected to a loader interface within

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3 said missile to receive an erase signal from said loader
4 interface, said microcontroller, responsive to said erase
5 signal, erasing said crypto key and said associated
6 checkword from said microcontroller.